UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Distri.
General

Original:
English

E/ECA/ENV/31

February 1987

ECONOMIC COMMISSION FOR AFRICA

Fourth Meeting of the Inter-governmental
Committee on Human Settlements and Environment.

Addis Ababa, 9 - 13 February 1987.

LC/NAIROBI.

PROGRESS REPORT ON THE DEVELOPMENT OF ENVIRONMENTAL CAPABILITIES TO COMBAT DESERTIFICATION AND THE IMPACTS OF DROUGHT IN THE AFRICA REGION.

I. INTRODUCTION

In the attempt to contribute in finding a solution to the problems arising from severe drought conditions and the process of desertification in Africa, the ECA Conference of Ministers of Ministers in April 1982 at Tripoli, Lityan Arab Jamahiriya, adopted resolution 446 (XVII) calling on its member States to make a more concerted effort towards combating desertification in Africa throught the implementation of the United Nations Plan of Action to Desertification which was adopted at the United Nations Desertification Conference (DESCON), held in Nairobi in 1977. Unfortunately, the situation worsened curing the years after 1982 imposing it on the ECA Conference of Ministers to follow it up, at its eighteenth session in 1983, by resolution 473 (XVIII) of April, 1983 which requested the Executive Secretary of ECA to urgently organize a special Scientific Round Table on the climatic situation in Africa in order to examine the problem and propose solutions to it to member states. One of the most important outcomes of the Scientific Round Table which was held in February, 1984, was the Regional Plan of Action to combat the impacts of drought in Africa. This Plan of Action was adopted by ECA Conference of Ministers' resolution 499(XIX) of May, 1984. The other important outcome was resolution 528(XIX) of the same Ministerial meeting of 1984, on the development of meteorological services to combat drought in the region. By this resolution the Executive Secretary of ECA was requested to study with the World Meteorological Organization (WMO) and other concerned United Nations organizations, the feasibility of establishing an advanced centre for meteorology in Africa or any other alternative institutional mechanism that would serve that purpose. After considering the report of the Executive Secretary as requested by that resolution the Conference of Ministers at its twentieth session in 1985 decided by resolution 540(XX) to establish an African Centre for Meterological Applications for Development (ACMAD).

Since the last meeting of the Inter-governmental Regional Committee on Human Settlements and Environment in July, 1985, there have been a number of follow-up activities to implement these resolutions and develop, in the region, environmental capabilities for combating the impacts of drought and control the desertification. This report outlines follow-up activities carried out by ECA within the context of its Environment in Africa programme and those that the Secretariat has carried out in collaboration with other United Nations agencies as well as with governmental and non-governmental organizations, between July, 1985 and January, 1987. The report examines activities at the national, sub-regional and regional levels carried out by some national governments, those by sub-regional and regional governmental and non-governmental organizations as well as by the United Nations system.

I. ECA ACTIVITIES DURING THE PERIOD UNDER REVIEW

Since July 1985, ECA has been involved in a number of activities aimed at assisting member states, in one way or another, to develop capabilities for combating the impacts of drought and to control the process of desertification. It will be recalled that the Third Meeting of the Joint Committee made recommendations for follow-up action in the search for the modalities for establishing an African Centre of Meteorological Applications for Development as decided by resolution 540 (XX) of April, 1985. ECA then continued consultations with the World Meteorological Organization (WMO) and at the WMO Second Technical Committee on the Management of Meteorological Sercices in Africa held in Bujumbura, the Republic of Burundi in November, 1985 at which it was decided that a committee selected on a subregional basis be established to monitor the establishment of the Centre. In October, 1986 ECA in collaboration with WMO also convened an inter-agency meeting in Bujumbura to further discuss the matter with all the agencies concerned.

The Environment Section at ECA provided inputs into a paper on the "Interrealationship between Drought, Desertification and the Economic and Social Crisis in West African countries'. This paper was requested by the West African MULPOC countries at the meeting of the policy organs of the MULPOC in March 1985 and was delivered to the March, 1986 meeting of that MULPOC policy organ as requested, by the Socio-Economic Research and Planning Division.

In November 1985, with the collaboration of UNEP and the African Development Bank, ECA conducted a curriculum development workshop at the ADB headquarters in Abidjan, Republic of the Cote D'Ivoire to work out the modalities for incorporating environmental components in the training programmes of ECA-sponsored institutions in the region. One of the areas covered was on 'Drought and Desertification Control: Social, Economic and Environmental Implications."

The Environment Section is also preparing a publication in collaboration with UNEP and UNSO on Combating Desertification in Africa: national and regional efforts:. This publication is based on the workshop on the same topic that was held in Khartum, Sudan in October, 1982. This publication should be ready in the course of 1987.

As a contribution to efforts to combat the impacts of drought and desertification in the Republic of Somalia, the Environment Section participated in six-man multi-disciplinary mission to that country from 28 October to 5 November, 1985. The main purpose of the mission was to consult with the government, at its request, on the possible areas of assistance in the key sectors of development in the country. The mission examined the prevailing problems, especially those pertaining to the environmental degradation that has led to poor production in agriculture and related sectors. Recommendations were made as to how best ECA could be of assistance to the country in solving these problems.

The Environment Section participated, with UNEP and OAU, in the preparation of the first African Ministerial Conference on the Environment which was held in Cairo in December, 1985. The details of the outcomes of that meeting are reported in a separate document for this joint committee meeting.

In preparation for the Special Session of the General Assembly of the United Nations on the social and economic crisis in Africa, the Environment Section provided inputs on the submission regarding the impacts of drought and desertification on the economic and social crisis and also contributed in servicing an OAU/UNSO/ECA ad hocmeeting of inter-governmental organizations and specialized agencies concerned with combating desertification in Africa. This meeting was held at ECA headquarters in March 1986.

A staff of the Environment Section represented the Executive Secretary of ECA at the Harare public hearings on the environment organized by the World Commission on Environment and Development from 15 to 23 September, 1986. At this hearings a statement was presented to outline the major environmental issues in Africa today as the ECA sees them and how they could be tackled.

In order to draw the attention in programme activities to the health and disease problem and their implications in the efforts to combat theimpacts of drought among the nomadic and displaced populations of the drought - and desertification-prone areas of the region, ECA with the collaboration of WHO have been preparing for an ad hoc expert group meeting at ECA in March, 1987. The meeting will discuss possible areas of joint programming or collaboration between concerned organizations at national, subregional and regional levels. Orientation for 1988 - 1989 activities will also be initiated and will be used as a guiding framework for programme activities and will be at the next meeting of the Joint Committee.

II. SITUATION AT THE LEVEL OF THE MULPOCS

This section contains summaries on activities in a selected countries in the MULPOC subregion. Only countries from which the secretariat has had updates for the period under review have been included. The other countries are requested to provide this information at this meeting.

1. The Lusaka-based MULPOC subregion:

A. Angola:

Despite resource constraints, the Angolan Association for the Engironment held its first meeting in 1982 in Luanda in order to plan for the establishment of the infrastructure necessary for a programme to combat desertification

in the country. The meeting also recommended the mobilization of the masses to execute national projects such as the afforestation of suitable sites near towns, organizing an annual tree-planting day in each province and the creation of information diffusion centers for extension work on desertification control. Angola needs a lot of technical assistance from international organizations and donors because of its late independence which had suppressed development and manpower training. Urgent aid is required by the Association a forest inventory survey project and for another on the conservation of the remaining forests.

B. Botswana

The problem of desertification in Botswana is centered around over-grazing and over-stocking of livestock around water holes. A large number of projects are being undertaken by the government that are aimed at the development of agriculture irrigation and water resources, the introduction of alternative sources of energy and the development of the institutional framework for the adaptation of technology and its dissemination[1/]. The following are some of the activities being undertaken by the Government to implement combating desertification programmes:

(a) Under the Tribal Grazing Land Policy, (TGLP) and Associated Livestock Development Programmes (ALDP) which have been integrated in the current National Development Plan, sound land use management practices which are also socially equitable and cost effective, have been introduced,

(b) Small dams for watering herds up to 490 have been constructed for communal use,

(c) An irrigation section has been established in the Ministry of Agriculture, and research into dryland farming and fixation of sand dunes is being carried out,

(d) Rural health centers and meteorological stations to monitor climate, vegetation changes and rangeland conditions are being expanded;

(e) A Drought Inter-Ministerial Group to develop facilities to cope with drought; an operational renewable Energy Technology Centre; a Natural Resources Technical Committee to monitor natural resources utilization: and a training course in Environmental Sciences at the University College of Botswana has been set up.

1/ See Michael B.K. Darkoh (1986): Combating Desertification in the Southern Africa region. Athen, Ohio, USA. February, 1986. This is the report of a consultancy that was carried out for UNEP.

C. Ethiopia:

The problem of desertification and land degradation in Ethiopia is typical of what has been happening in other countries Sudano-Sahelian Region. Though climatic conditions have had their play, the destructive activities of man in the form of agriculture and grazing had the most significant impact in Ethiopia. Over-grazing, deforestation, shifting cultivation and road construction practices especially in the high lands are the main causes of desertification, and is still taking measures to combat desertification and land degradation in many parts of the country.

To date, there are a number of on-going projects already being supported by international, bilateral and other agencies that are related to desertification control and protection of the Ethiopian environments. The activities within the Relief and Rehabilitation Commission (RRC) involves land-use planning, catchment reclamation and settlement. These projects are integral parts of activities to combat desertification, and are related to settlement and catchment activities. Some of these projects are awaiting external finance for implementation and others require detailed study and feasibility work.

D. Lesotho

To alleviate the effects of drought on the population, there is a Disaster Relief Committee comprising of representatives from the Ministries of Interior and Health as well as from the police, the Red Cross and the Cabinet Office. The committee is currently studying a proposal on "Policy Recommendations on Drought and Famine in Lesotho". These recommendations call for the setting up of a national co-ordination mechanism as a strategy for famine preparedness the setting up of a warning system and a contigency plan for funds, personnel training, logistics, food security, stocks, procedures and institutional responsibilities. Presently the Disaster Relief Committee is responsible for the distribution of food items to drought stricken areas or areas cut off by snow during winter. The Committee works hand in hand with the Food and Nutrition Co-ordinating Office, the Food Management Unit, and the UN World Food Programme. The Food and Nutrition Co-ordinating Office, located in the Prime Minister's Office, has responsibility for developing national integrated food and nutrition programme. The Food Management Unit (FMU) is responsible for procurement, storage and distribution of food donations in the country. In many cases, the estimated short-fall in food supply is more than the World Food Programme (WFP) can supply. Apart from the short-fall one major problem in drought relief is accessibility in the highlands.

E. Mozambique:

Government has set up a Department for Prevention and Relief of Natural Calamities under the National Planning Commission. This department is responsible for relief and rehabilitation of victims of drought, floods and other climatic disasters. The World Food Programme (WFP) and the FAO provide assistance both materially and technically. FAO is currently assisting in setting up a relief plan in which provision is made for strengthening the district administration to give it capacity to handle food distribution. In addition FAO is assisting the government in setting up 'An Early Warning System' under a project which will include training in processing meteorological date, remote sensing, and in strengthening the meteorological services network in the country.

World Food Programme (WFP) assistance in drought relief is linked with the afforestation programme. Currently, a US$19.3 million 5 year programme is being implemented, through which 'Food for Work' schemes are run for afforestation schemes in Maputo, Lofale and Inhambane - provinces. Currently some 4500 workers are employed in this scheme. In addition proceeds from sale of WFP food is invested in social infrastructure which will benefit the workers.

A Food Reserve Contingency plan to cope with drought and flood disasters has been established with the assistance of the World Food Programme. A strategic food reserve estimated at some 60,000 tons is to be established. It is estimated that this is the requirement of food for a period of 6 weeks - a time lead necessary for the shipment of food from Australia if necessary. The strategic food reserve is to be located at Maputo 35,000 tons, Beira, 15,000 tons, and Nampula 10,000 tons. In 1982, the World Food Programme is contributing some 10,000 tons of maize, the Government of Australia 10,000 tons of wheat, with the balance to be supplied by other donors.

F. Tanzania

A national plan of action on desertification control does not exist as such, but the various ministries concerned with natural resources development encourage inter-sectoral activities to combat the impact of drought control desertification. In this regard, the proposed Multi-disciplinary Interminis terial Committees on Land Use Planning should play a crucial role in enabling formulation of an integrated national land use plan which has been built into its components on desertification control. Government is presently studying the 'Draft Plan of Action to Combat Desertification for Tanzania', prepared by a UNEP mission in September/November 1980. This expected to help government's thinking on incorporating desertification control planning in the framework of the proposed interministerial committee.

Agencies like the Rufiji Basin Development Authority and the Regional Physical Planning Section of the Ministry of Lands, Housing and Urban Planning are very anxious about integrated regional planning in which definite provisions for desertification control would be included. The first such regional plan of the 'Uhuru Corridor', an area staddling the Tanzania - Zambia Railway - seems to have provided very useful experience on the importance of an integrated land use plan in which questions of environmental protection, conservation, catchment management, land capability, etc. are in corporated in the plan.

G. Zimbabwe:

In each province, there is Drought Relief Committee, which comes under the Ministry of Labour and Social Welfare. Its membership is drawn from the main Ministries, and each committee is provided with funds to extend relief in form of food and water to areas affected by drought. A UNESCO-MAB IPAL project identified the following constraints as necessary to be taken into account in any future management plans for desertification control:

(a) Failure to protect land in the vicinity of water of supplies against over-exploitation leads to serious environmental degradation around water holes;

(b) The lack of adequate livestock marketing facilities and the difficulty of relieving the high concentration of livestock in the vicinity of settlements as well as the urgent need to restore a measure of livestock mobility which had been lost in recent years with the continuous reduction in nomadism;

(c) The lack of security against banditry and the means to insure pastoralists against the loss of their livestock through drought, diseases and cattle raiding;

(d) The difficulty of finding suitable substitute material for local trees which were normally felled in large numbers in order to build livestock enclosures in Sahel vegetation;

(e) The questionable acceptability among pastoralist people of recommended management practices for arid lands; and the capability of Governments to provide the authority form implementing them;

(f) The very great difficulty of providing flexibility in management procedures including alternative forms of livelihood to animal husbandry, which would accomodate to the extreme variability of annual rainfall and the consequent variability in plant production and short-term livestock carrying capacities in arid and semi-arid lands.

Activities by subregional organizations in the Lusaka-based MULPOC

a) Inter-Governmental Authority for Drought and Development (IGADD):

The Inter-Governmental Authority for Drought and Development was established in December, 1985 with the objective of Coordinating activities for combating the impacts of drought and control desertification in the countries of Eastern Africa, namely, Djibouti, Ethiopia, Kenya, Sudan and Uganda. IGADD has developed a strategy to combat the impacts of drought and desertification that is embodied in a Plan of Action. The objectives of the Plan of Action are, inter alia,

a) "to co-ordinate and supplement the efforts of member states to combat the effects of drought and other related natural disasters and to assist their development efforts as well as help them to deal with the problem of medium and long-term recovery and rehabilitation: .....

b) to assist member states in setting up deadlines and action programmes for drought and desertification as well as following up the implementation of drought related activities of the sub-region: ..."2/

b) Southern African Development Co-ordination Conference (SADCC):

The Southern African Development Co-ordination Conference (SADCC) comprises of Botswana, Lesotho, the United Republic of Tanzania, Zambia and Zimbabwe. The Conference entrusted the Kingdom of Lesotho with the task of co-ordinating activities relating to Soil and Water Conservation and Land Utilization. The objectives of the Soil and Water Conservation and Land Utilization Co-ordination Unit are:

a) to improve member government performance in relation to soil and water conservation and wise land use:

b) to avoid conflicts of interest that may arise out of environmental degradation:

c) to develop policies and practices based upon involving the people in conservation activities: and

d) to integrate relevant disciplines and the contributions of the various concerned institutions in solving problems of conservation and land utilization.

2/ See Inter-Governmental Authority for Drought and Development, Assembly of Heads of State and Government, First session, Djibouti, 15-16 January, 1986: Basic document, Vol. 1.

To achieve these objectives many learning projects and programmes have been intiated. These include:

a) Integrated Planning and Conservation Strategies:

b) Methodology for Cost-Benefit Analysis in conservation activities

c) Monitoring systems for environmental control:

d) Training facilities in the SADCC region:

e) Involving the people in programme implementation:

f) Management of projects and programmes:

g) River basin management:

h) Applied research and laboratory facilities:

i) Conservation policy making:

j) Erosion mapping of the SADCC region

k) Monitoring systems for environmental control:

l) History of soil conservation, conservation policies and people's involvement:

m) traditional skills and existing conservation practices:

n) Land degradation and desertification control.

2. Activities in the Yaounde-based MULPOC subregion:

Chad:

Since 1969 which marks the beginning of very severe droughts in Chad, the Government has established a number of projects such important among which are: (a) The creation of a green-belt around N'Djamena, and other

(b) the Operation Green Sahel which is aimed at reinforcing re-afforestation activities all over the country.

3. Activities in the Niamey-based MULPOC subregion:

A. Benin:

Recently, a Commission for the Preservation of the Environmentation of the Environment was formed by intellectuals to promote forestry legislation and policing of reserves and the prevention of illegal tree cutting and hunting. Voluntary groups also run a programme to promote activities to control desertification by creating environmental awareness and discouraging deforestation practices.

B. Guinea:

Two administrative committees ensure the co-ordination of most activities directly or indirectly concerned with the desertification campaign. They are:

(i) The Permanent National Committee on Manandthe Biosphere (MAB):

(ii) The National Technical Committee for Co-ordinating regional project UNSO/RAF/81/060 for the integrated development of Fouta-Djallon.

These projects are intended for the study of the customary methods of exploiting the environment, in order to analyse:

- Slash and burn agriculture:
- The frequency of changing to new pastrue:
- The amount of firewood collected:
- Overgrazing within the livestock environment:
- The needs for basic food products, which are constantly rising because of the demographic explosion.
- The non-use of fertilizers within agriculture.

C. Nigeria:

A total of 57 tree nurseries had been established within the arid zone by the National Committee on Arid Zone afforestation about an equal number of nurseries had also been established by the States Forestry Division in the country over 16 million seedlings are being produced each year, although the current economic depression reduced the seedling production in 1982. Each nursery was supposed to raise 250,000 seedlings. These targets were achieved in most of the nurseries but there are a few cases where inadequacy of water supply constituted major constraint.

About twenty-four boreholes had been provided in the five states namely Bauchi, Bornu, Kaduna, Kano and Sokoto, that are drought and desertification-prone. In some of the nursery sites where water is a big constraint in raising seedlings. Other major free inputs given to the States Forestry Division include polypots, cattle fencing and barbed wires and treated fencing posts.

Two large fruit tree nurseries were also established in each of the five states in order to encourage local people to establish orchards. Each of the fruit tree nursery is capable of raising up to 11 million seedlings. The fruit tree nurseries are sited at Bauchi Azare (Bauchi State) Maiduguri, Gashua (Borno State) Katsina, Daura (Kaduna State Ringim, Thomas Dam (Kano State. Gwalli and Kassagarunwa (Sokoto State).

Even though the Committee is not directly involved in forest plantation establishment: it functions at present in mobilizing individuals and communities in the Arid Zone and arousing their interests in planting trees. Communal and private establishment of plantations are highly encouraged by providing seedlings, and fencing materials as free inputs to anyone who shows genuine interest in woodlot establishment. Over 3,000 hectares of plantation had been established so far.

Efforts are also being made by the State Forestry Division by getting both the Radio and Television Stations as well as traditional rulers involved in the annual tree planting campaign. It is pertinent to mention that since the inception of the Committee, tree planting campaigns were held in may Local Government Areas in the Arid Zone than in the previous years.

In order to get grassroot participation in the project, the Local Government Forestry personnel have got to be fully utilized. Unfortunately, in most of the states such staff where they exist lack the professional competence to cope with the job. It has therefore been proposed that refresher courses and in-service training be organized to enable the Local Government staff acquire the basic knowledge of forestry matters relating to Local Government and rural development. Courses would be organized also for state forestry officials - Forest Guards, Local Government supervisors, Sivicultural Assistant and Forest Assistants and Superintendents.

One school had been established in Kano near Bayero University Campus. It is situated on a 25 hectare piece of land at Dorayi Forest Reserve. Blocks of classrooms, hostel, staff quarters and administrative blocks had been provided. The School would take off any mement from now as soon as electricity and water supply are affected.

D. Senegal:

At the present time the Environment Department of the Ministry of Plan is specifically charged with the co-ordination or control of the programme to fight desertification. At the forefront of this struggle, however, is rural development. This development integrates all aspects of concern over natural resources. The fight against desertification and its effects necessitates an integrated overall approach, which is made difficult by administrative compartmentalism. For this reason, in 1973, the government of Senegal first regrouped the key sectors concerned with desertification into a unique ministerial department and then elevated into a Ministry this sector whose autonomy is essential in the struggle against desertification. The main government departments in these efforts are:

- The State secretariat for Water and Forest - The services of the Ministry of Rural Development, notably the Direction General de la Planification (D.G.P).

- The services of the Ministry of Urbanism of the Habitat and of the Environment.

- The Ministry of Water Affairs.

- The department for the study and application of solar energy.

- The Senegalese Institute of Agronomical Research.

- The National Committee of CILSS.

- The Senegalese Institute of Environmental Sciences.

Senegal also has a number of services which can help in activities to combat the impacts of drought and desertification within and outside the sphere of rural development. However, more co-ordination is needed to create a coherent group which functions in the following **May**.

Activities by subregional organizations in the Niamey-based MULPOC.

a) Comite Inter-etats pour la Lutte contre la Secheresse dans le Sahel (CILSS):

The main objectives of CILSS has been to promote the overall development of capabilities for desertification control in its member states through programmes for food and animal production, reafforestation, drought relief and the development of an infrastructure of activities to reduce the vulnerability of the economy to the vagaries of climate. In order to finance the

implementation of these programmes CILSS has developed an association the Organization for Economic Co-operation and Development (OECD) donor countries which operates through the Club du Sahel since 1976. CILSS works very closely with United Nations Sudano-Sahelian Office (UNSO), UNEP, UNESCO, FAO and other organizations concerned with combating desertification in the Sahel of West Africa.

III. CO-ORDINATION OF REGIONAL ACTIVITIES:

a) Organization of African Unity (OAU):

In response to General Assembly resolution 34/185, an OAU project on the restoration and improvement of the Fouta Djallon Massif, approved by OAU Council of Ministers resolution 756 (XXXIII), was considered by the UNEP Governing Council at its eighth session and incorporation into the environment programme by its decision 8/17 of 29 April 1980. UNSO assumed responsibility for implementing the OAU project and organized an inter-agency mission in May/June 1980 to the Fouta Djallon Massif with FAO, UNESCO, OAU, UNSO and with the support of the Government of Guinea. Follow-up on this pilot project awaits the report of the mission. During 1985 and 1986 UNEP and ECA had consultations on the final implementation of the project.

b) Food and Agriculture Organization (FAO):

Several FAO programmes and field activities deal with the agricultural and forestry development problems of arid and semiarid land areas. FAO believes that the design and execution of projects in this field must be accomplished with maximum participation from the habitats of the area affected. Training at all levels and the building of strong institutional capability are also essential to the long term success of desertification activities. A prime requisite for success is an understanding of the ecological system and prevailing social factors in which the activity is to be carried out. Too often these factors are not given sufficient consideration.

c) United Nations Environment Programme (UNEP)

UNEP, in compliance with the call of the Plan of Action, has undertaken the organization and co-ordination of a number of projects at international and regional levels. Among them several have been either of direct or indirect interest to the African countries. In 1985 UNEP approved the development of a project to reinforce the co-ordination of action to combat desertification by African NGOs. The project aims at formulating and assisting in the implementation of field projects, compiling a directory of NGOs working in the field of desertification control technology, producing a set of recommendations on how NGOs can assist more effectively to implement the plan of Action, and publish a newsletter that will act as a focal point for information exchange between NGOs and other bodies and between NGOs themselves.

UNEP also upgraded its Desertification Control Unit into a Programme Activity Centre (PAC). The Desertification Control PAC in 1986 embarked on a new long term programme to concentrate their limited resources on a few selected countries for a three to five year period. Most of the countries concerned are in Africa. The concentration strategy will involve a phased approach in each country with the ultimate goal of formulating a National Plan of Action to Combat Desertification as an integral part of the overall development plan, in conformity with resolution 22 of the PACD. In collaboration with ECA and OAU, UNEP also organized the first African Ministerial Conference on the Environment held in Cairo, December, 1985 which laid down a programme of work for conserving the African environment.

Information dissemination activities are increasingly becoming important at UNEP as the organization has realized that little can be done if decision makers, governments and the public are not aware of the very real threat that desertification posses to their future and the options open to them for halting the spread of the desert and degraded lands. To enhance the quality and effectiveness of its activities in this area, the Desertification Control PAC is establishing a computerized Desertification Information System at UNEP headquarters beginning in 1986. Data files are being created on institutions and organizations concerned with desertification, the activities of the UN system, NGOs, individual countries and UNEP in this field, an annotated bibliography of publications and reports of various desertification topics, a compendium of desertification control technologies, a listing of sources of expertise and funding, and other related subjects. It is estimated that the system will become functional in 1988.

The Desertification Control PAC is also setting up a Desertification Database which will contain data on the status, rate and risks of desertification at the national level. The data will be gathered and compiled using a variety of methods, including projects using the FAO/UNEP formulated methodology for assessing and mapping desertification. The data collected through these projects will form part of a national Geographic Information System. The Desertification Database will be used by UNEP to disseminate information on the nature and spread of desertification in different parts of the world. The national databases will be used by governments in formulating plans to combat desertification and in monitoring their effectiveness.

d) United Nations Sudano-Sahelian Office (UNSO):

The principal thrusts of UNSO's desertification control operations have been in combating deforestation, range management, water resources management, sand dune fixation, planning and programmeing. These activities focus on the main causes and manifestations of desertification in the region and respond to the priorities set by the Governments and their specific requests for UNSO assistance. UNSO is increasingly adopting a multidisciplinary approach, with these considerations in mind.

In the same vein, afforestation programmes to provide the countries with fuel and construction wood on an ecologically sound basis, are now increasingly linked with and paralleled by projects involving improved, fuel-efficient stoves. Projects for the development and building of such stoves, using local materials and labour for the most part, have been initiated.

e) World Meteorological Organization (WMO):

One of the most important contributions of WMO in combating the impacts of drought has been the establishment of the Agrometeorological and Hydrological programme (AGRHET). The area covered by the programme is between latitudes 23 1/2 N and 10 N, extending from the west coast to central Africa, covering 5 million sq. km. of territory including environments ranging from deserts to humid forests. The CLISS member countries are Chade, Gambis, Mali, Mauritania, Niger, Republic of Cape Verde, Senegal and Bourkina Faso. A large part of the area is semi-arid grazing land of variable quality and less than one tenth is arable. The staple food crops are millet, sorghum and cowpea. These are cultivated on about two-thirds of the land groundnuts and cotton are also grown. There is some irrigation, mostly in river basins, thus providing slightly higher and less variable crop yields and permitting some double cropping.

The main objective of the AGRHYMET Programme is to supply the rural community in the area with meteorological data that can be used to increase food and livestock production. Agroclimatology in the Sahel is aimed at the optimum use of rain and surface water resources. The identification of the data and their presentation for use in agriculture is an essential task for operational agroclimatology, and an essential link between basic meteorology and climatology on the one hand and application of these sciences to agriculture on the other. The programme involves the creation of a system for the collection and application of the basic meteorological and hydrological data to agriculture and water resources management and the training of personnel to observe, analyze and apply the derived data. The national components of the programme involve the expansion of meteorological and hydrological networks, collection and processing of the data and dissemination of informations to the users, in particular agronomists and hydrological engineers. Training of agrometeorological and hydrological personnel is one of the prime functions at the AGRHYMET Centre created under the Programme in Niamey. Progress has also been made in the reinforcement of the network of observing stations. Table II gives the network of stations at end of 1981 and proposed stations to be established during the next phase (1982-1986)

IV. PLANNED ACTIVITIES FOR THE NEXT REPORTING PERIOD:

A. ECA Programme of Work:

The Environment Section is giving the main thrust of its activities for the 1988 - 1989 reporting period with combating drought and desertification as the most important priority. It will therefore continue activities to develop capabilities for combating the impacts of drought and for controlling the desertification process. In this connexion, the following activities are being proposed:-

a) Data will be collected and a report will be prepared on the measures to mitigate environmental degradation, health and disease problems related to drought and desertification in the Niamey-based and Lusaka-based MULPOCs. These reports will be presented to the policy bodies of two MULPOCs in 1988 and 1989 respectively. The idea here is to draw the attention of policy-makers, decision-makers and planners of the countries affected of the need to have systematic programmes that will, in an integrated manner, cater for environmental protection and the control of transmissible diseases among these populations that are highly nomadic and in some cases, displaced.

b) As a contribution to the implementation of the African Ministerial programme of the Conference on the Environment, ECA proposes particularly the development of capabilities for combating the impacts of drought and the desertification control aspects of it, ECA proposes to assist member states to incorporate the programme activities into on-going national environment programmes. Advice is therefore need from participants on how best to do this. A report of this will be made to the joint committee at its meeting in 1989.

c) Within the context of the United Nations Programme of Action for African Economic Recovery and Development 1986 - 1990, ECA proposes to monitor the implementation of the drought and desertification aspects of the programme and report to the Joint Committee at its next meeting in 1989.

d) ECA also proposes to organize a study tour, if the funding is acquired, for representatives of member states to four countries of the North African MULPOC to see how they have been implementing measures for combating drought and desertification. The idea here is to initiate intra-African technical co-operation on drought and desertification activities.

V. CONCLUSION:

The preceding paragraphs are only an over-view of the many activities on the development of capabilities for combating the impacts of drought and for the control of the desertification process in the region. It will be very useful for participants to update the information contained therein as concerns their countries or organizations to assist the Commission in the assessment of the progress being made so that related programme activities can be developed accordingly. It is also extremely important that participants provide their comments on the proposed activities so as to facilitate their implementation in member states.